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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,178	07/08/2003	Douglas A. Soller	J-3862	1887
28165	7590	04/19/2005	EXAMINER	
S.C. JOHNSON & SON, INC. 1525 HOWE STREET RACINE, WI 53403-2236			COLE, LAURA C	
			ART UNIT	PAPER NUMBER
			1744	
DATE MAILED: 04/19/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,178

Applicant(s)

SOLLER ET AL.

Examiner

Laura C. Cole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-21, 23-36 and 44-47 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 24-27 is/are allowed.
6) ☒ Claim(s) 2-12, 14-16, 19-21, 23, 28, 29, 33-36 and 44-47 is/are rejected.
7) ☒ Claim(s) 13, 17, 18 and 30-32 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 03 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 02282005.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 28 February 2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

There is not a copy of citation AL which is Document No. DE941153 and therefore this reference has not been considered.

2. In the information disclosure statement of 28 February 2005 reference citation AB is crossed through because it is a duplicate of a reference cited on PTO-892 of paper number 10192004.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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3. Claims 2, 3, 5, 10, 12, 14, and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones et al., USPN 2,514,496.

Jones et al. discloses the claimed invention including a brush head comprising a plurality of layers of a water degradable material positioned on top of each other to form a stack of such layers (Figure 6; Column 3 Lines 50-61; paper is considered to be water-degradable), wherein at least two of the layers are formed from a sheet of material that has been folded back upon itself (as shown in Figure 7 where the plurality of layers are being folded back upon themselves), and wherein the head is configured such that a first end of the stack is held together (17) and the opposed end of the stack can spread out between the at least two layers (Column 3 Lines 55-57). The brush head has attachment means that are staples (Column 4 Line 3). There are bristle segments adjacent opposed end of the stack (20). It appears in Figure 6 that the brush head comprises between four and forty layers. At least five external side surfaces of the brush are free of surfactant (since no surfactant has been mentioned in Jones et al.) The attachment means appears to comprise no more than one-third of a head axial length (see Figure 2).

4. Claims 2, 3, 5, 10, 12, 14, and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Beagle, USPN 2,428,306.

Beagle discloses the claimed invention including a brush head comprising a plurality of layers of a water degradable material positioned on top of each other to form a stack of such layers (Figure 5; Column 2 Lines 11-16; paper is considered to be water-degradable), wherein at least two of the layers are formed from a sheet of

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material that has been folded back upon itself (Column 2 Lines 28-34), and wherein the head is configured such that a first end of the stack is held together (12) and the opposed end of the stack can spread out between the at least two layers (opposite end of "12", as shown in Figures 1 and 5). The brush head has attachment means that are staples (14). A plurality of the layers are formed with bristle segments adjacent the opposed end of the stack (see Figure 5, "13"). The brush head appears to comprise between four and forty layers in the stack (see Figure 5). At least five external side surfaces of the brush are free of surfactant (in that not a single surfactant is included in this device.) The attachment means comprises no more than one-third of the head axial length (Figure 5).

5. Claims 2-4, 6, 10, 19, 21, and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Strader, USPN 2,813,286.

Strader discloses the claimed invention including a brush head comprising a plurality of layers of a water degradable material positioned on top of each other to form a stack of such layers (layers "10", Figure 2; paper is considered to be water-degradable), wherein at least two of the layers are formed from a sheet of material that has been folded back upon itself (as shown in Figure 2 where the plurality of layers are being folded back upon themselves during rolling), and wherein the head is configured such that a first end of the stack is held together (at 16) and the opposed end of the stack can spread out between the at least two layers (Column 2 Lines 37-42). There is a water-dissolvable attachment means comprising of adhesive (21) adjacent a first end of the stack (16; Figure 2), while allowing part of an opposed end of the stack to spread

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out between layers (14). Some of the layers are held together by pressure bonding at least one portion of the brush head (pressure given by "11"; Column 2 Lines 69-71). A plurality of layers are formed with bristle segments (14) adjacent the opposed end of the stack (see Figures 2-3). The brush head is stored in a seal pouch (17) having a circumferential pouch tear line (25) wherein the pouch is a water-dissolvable cover (Column 3 Lines 22-24, cover is made from paper) that is positioned over a portion of the brush head to which adhesive has not been applied (the pouch "17" covers portions where adhesive has not been applied, Figure 1). The attachment means appears to comprise no more than one-third of a head axial length (see Figures 1-2).

6. Claims 2, 3, 7-10, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Trenz et al., USPN 6,745,427.

Trenz et al. disclose the claimed invention including a brush head comprising a plurality of layers of a water degradable material positioned on top of each other to form a stack of such layers (the layers "1" are stacked as shown by the arrangement in Figure 1 and 4; Column 2 Lines 41-53), wherein at least two of the layers are formed from a sheet of material that has been folded back upon itself (Column 2 Lines 41-43, wherein each of the plurality of layers are being folded back upon themselves since they are rolled), and wherein the head is configured such that a first end of the stack is held together (by "2") and the opposed end of the stack can spread out between the at least two layers (see unlabeled brush head in Figure 4 wherein the ends of bristles "1" are spread). The water-soluble attachment means (2; Column 2 Lines 38-40) are at a first end (see Figure 1) and at least part of an opposed end are spread out (see Figure 4).

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The brush head has been at least partially impregnated with a chemical composition such as a surfactant (Column 2 Lines 57-59) that may comprise 0% as it does not mention water. The layers are formed as bristle segments adjacent the opposed end of the stack (Column 2 Lines 41-43). The brush head appears to comprise between four and forty layers of the water degradable material (see Figure 1).

7. Claims 2-4, 6, 12, 15, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Farrell, USPN 2,666,223.

Farrell discloses the claimed invention including a brush head (102) suitable to be held by a cleaning device (100), wherein the brush head comprises a plurality of layers of a water-degradable material (110; and can be “flushed” and disintegrates in water, Column 3 Lines 7-24, Column 4 Lines 40-44) and the layers are positioned on top of each other to form a stack (see Figures 2 and 4). The material is folded back upon itself (see Figure 4, Column 3 Lines 35-42) and wherein the first end of the stack is held together (upper portion at “18”) and an opposed end of the stack can spread out between layers (see opposite end of “18” in Figure 1). There is a water-dissolvable attachment means (106, Column 3 Line 62 to Column 4 Lines 18). The attachment means is an adhesive (Column 3 Lines 68-70). The layers are held together and are bonded to each other by pressure exerted by “106”). The head comprises at least four layers in a stack (shown in Figure 4). The brush head comprises at least two plies of the water degradable material (see Figure 4; “plies” is defined as “a layer, as of doubled-over cloth” by *The American Heritage® Dictionary of the English Language, Fourth Edition Copyright © 2000 by Houghton Mifflin Company.*) There is a separate

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water-dissolvable cover positioned over a portion of the brush head to which the adhesive has been applied (the cover is 106 that covers the upper portion, see also Column 3 Lines 68-70).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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8. Claims 23, 29, and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Federico et al., USPN 5,630,243 in view of Weihrauch, USPN 4,987,634.

Federico et al. discloses the claimed invention including a wand comprising a handle having an internal axial cavity (see Figures 1A-5), a lower opening communicating with the cavity (see Figure 1A where the portion "9" is near that is an opening) and a radial opening (where "2" is situated to move within bottom of the outer structure in Figure 1A), an actuator having a projection (2) operating through the radial opening (see Figures 1A-2), a connecting rod linked to the projection in the handle cavity (4), and two jaws (7 and 8) linked to the rod (via 9) which extends out the handle through the lower opening (see Figure 1A), wherein the wand is constructed and arranged such that a first movement of the projection will move the jaws to a first position to release a brush head and a second movement of the projection will move the jaws to a second position suitable to clamp a brush head (Column 4 Line 49 to Column 5 Line 4). There is at least one outer contact "ear" formed on a jaw (being the "raised" curvature joint area at the connection of "7" and "5" shown in Figure 2). The wand is for holding a toilet brush head (Column 3 Lines 13-42). The brush head portion "13" is inserted into a jaw (see Figure 7). A portion of the handle adjacent a jaw is curved (see Figures 2-5 near where the reference numeral "5" is located) and a portion of the rod extends through the curved portion (see Figures 2-5). The handle has a lower drain hole (in Figures 3-5 behind the element referred to as "9" there is a lower opening that is

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capable of serving as a drain.) Weihrauch does not include that the two jaws are movable.

Weihrauch discloses the claimed invention including a wand that comprises a handle (6) having an internal axial cavity (see Figures 1-3), a lower opening (11) communicating with the cavity (see Figures 1-3), an actuator having a projection (12) extending through an opening (at 14), a connecting rod (3) linked to the projection (via 13) which is mounted in the handle cavity (see Figures), and two jaws (8) linked to the rod (at 7) which extend out the handle lower opening (see Figure 3), wherein the wand is constructed and arranged such that a first movement of the projection will move two of the jaws to a first position suitable to release a brush head (first position shown in Figure 1) and a second position suitable to clamp a brush head if a brush head is inserted into the jaws (see Figure 2).

It would have been obvious for one of ordinary skill in the art to modify the connecting rod of Federico to be connected to two movable jaws, as Weihrauch teaches, in order to clamp and retain disposable cleaning heads and to release them after the user is finished cleaning.

9. Claims 11 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beagle, USPN 2,428,306 in view of Reaume, USPN 5,560,070.

Beagle discloses all elements above, however does not include that that a single piece of material that has been repetitively folded in accordion fashion. Beagle does disclose using an elongated piece of material and folding it lengthwise to form two layers.

Reaume discloses a mop head that comprises a single piece of fabric that has been folded in accordion fashion (Column 1 Lines 29-36) to create layers and pleats that are in a loop form which are effective for cleaning.

It would have been obvious for one of ordinary skill in the art to modify the brush of Beagle to be made of a single piece of material that is folded repetitively on itself in an accordion fashion, as Reaume teaches, in order to create loops of surface cleaning material.

10. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trenz et al., USPN 6,745,427 in view of Manning et al., USPN 4,755,421.

Trenz et al. discloses all elements above including that the head is a nonwoven fibrous web of cellulosic material (Column 2 Lines 48-53), however does not disclose that the material is hydroentagled.

Manning et al. discloses a nonwoven fibrous web material that has a sufficient wet strength and is capable of disintegration when disposed through a plumbing system (Column 1 Lines 5-11.) The web is hydroentangled so that there is a wet strength for use and is capable of disintegrating under mild agitation in water (Column 4 Lines 9-38). Further, break up time of the hydroentangled fibrous web may surpass one minute (see Examples, Tables I-III). The device is for use as a "wet wiper" (Column 3 Lines 10-16).

It would have been obvious for one of ordinary skill in the art to modify the cellulose material of Trenz et al. to be hydroentangled, as Manning et al. teach, so that the material has a high wet tensile strength and breaks up under agitation such as flushing of a toilet.

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11. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trenz et al., USPN 6,745,427 in view of Strader, USPN 2,813,286.

Trenz et al. disclose all elements above including a water-dissolvable sealed pouch for storing the brush head (3; Column 2 Lines 43-48) that does not contain more than one brush head (Column 3 Lines 13-15). The pouch of Trenz et al. appears to have a circumference (see Figure 1), however does not disclose a circumferential pouch tear line.

Strader discloses all elements above, including a circumferential pouch tear line (25; Column 3 Lines 19-22).

It would have been obvious for one of ordinary skill in the art to modify the pouch of Trenz et al. to include a circumferential tear line, as Strader teaches, so that a disposable brush head may be released from its packaging.

12. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trenz et al., USPN 6,745,427 in view of Hagelberg, USPN 4,031,673.

Trenz et al. disclose all elements above, however do not include at least one layer of water-degradable material that is abrasive.

Hagelberg discloses a toilet bowl cleaning device that has at least one layer of the water-degradable material is abrasive (26; Column 2 Lines 24-29, Column 4 Lines 13-21).

It would have been obvious for one of ordinary skill in the art to modify at least one layer of Trenz et al. to include abrasive properties, as Hagelberg teaches, in order to more thoroughly clean and scrape surfaces of a toilet bowl.

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13. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trenz et al., USPN 6,745,427 in view of Hagelberg, USPN 4,031,673, and in further view of Sorrell, USPN 6,368,003.

Trenz et al. and Hagelberg disclose all elements above, however do not include at least one abrasive layer of water-degradable material that is apertured.

Sorrell provides a cleaning device that uses an apertured material to provide abrasiveness for cleaning (Column 2 Lines 35-39, wherein “mesh” is the apertured material, see Figures).

It would have been obvious for one of ordinary skill in the art to modify the abrasive material of Trenz et al. and Hagelberg to be apertured, as Sorrell teaches, so that the surface area of the apertures provide an abrasive surface for cleaning.

14. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Federico et al., USPN 5,630,243 in view of Weihrauch, USPN 4,987,634.

Federico et al. and Weihrauch disclose all elements above, however does not include that the rod has a portion with a cross-shaped cross sectional appearance.

It would have been obvious for one of ordinary skill in the art to modify the rod of Federico et al. and Weihrauch to have a cross-shaped cross sectional appearance since one of ordinary skill in the art would have expected the Applicant's invention to perform equally as well with the round cross-section taught by Federico et al.

Allowable Subject Matter

15. Claims 24-27 are allowed.

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16. Claims 13, 17-18, and 30-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art made of record includes a handle having an internal cavity, a lower opening, a radial opening, an actuator having a projection, a connecting rod linked to the projection, a jaw linked to the rod, two positions that clamp a brush head, and further a handle having teeth that extend radially into the cavity and a connecting rod that has radially outwardly extending teeth.

Furthermore, none of the prior art of record includes a first end of a brush head comprising of a plurality of layers of a water-degradable material positioned on top of each other to form a stack of layers, wherein at least two of the layers are formed from a sheet of the water-degradable material that has been folded back upon itself, and wherein the head is configured such that a first end of the stack is held together and an opposed end of the stack can spread out between at least two of the layers, and having an axially extending notch or wherein top and bottom layers of the stack are not impregnated with a surfactant while a plurality of layers between the top and bottom layers are impregnated with a surfactant.

Furthermore, none of the prior art of record includes a wand for holding a brush head, the wand including a handle with an internal cavity, a lower opening, a radial opening, an actuator having a projection extending through the radial opening, a connecting rod linked to the projection which is mounted in the handle cavity, and two

jaws linked to the rod which extend out the handle lower opening, and wherein the wand has been attached to a separately formed extension, the extension having a hangar hole or wherein the jaw has an axially extending tongue projection suitable to interfit with a brush head having an axial notch.

Applicants Arguments

18. In the response filed 03 March 2005, the Applicant contends that:
- A. The filing date of Treacy is after the Applicant's filing date.
 - B. Federico's device has only one moveable jaw.
 - C. Farrell shows a stack of sheets with the ends of all of the sheets being folded inward together as a group.

Response to Arguments

19. Applicant's argument A of 03 March 2005 with respect to Treacy have been fully considered and are persuasive. The rejection of Treacy has been withdrawn.
20. Applicant's argument B, filed 03 March 2005, with respect to the rejection(s) of claim(s) under Federico have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the combination of Federico and Weihrauch (see above paragraph 8)
21. Applicant's argument C filed 03 March 2005 have been fully considered but they are not persuasive.

Farrell does in fact disclose a brush head comprising of a plurality of layers of a water-degradable material positioned on top of each other to form a stack of layers,

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wherein at least two of the layers are formed from a sheet of water degradable material that has been folded back upon itself, wherein the head is configured such that a first end of the stack is held together and an opposed end of the stack can spread out between at least two of the layers (see above paragraph 7). The outer layer of sheets (110) is formed by folding that outer sheet back on itself and it encloses an inner layer of a sheet that is also folded back on itself. See Figure 4.


Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Cole whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on (571) 272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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